

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Ziming SUN, et al.

Serial No. Not yet assigned

Filed: December 11, 2001

For: STABILIZED ASCORBIC ACID  
COMPOSITION

Group Art Unit:

Examiner:

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail No. **EL891832630US** postage prepaid, in an envelope addressed to: Box New Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231 on **December 12, 2001** By: Kristin Freebairn *Kristin Freebairn*

12-12-01

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

**REMARKS**

In the Continued Prosecution Application (CPA), Application Serial No. 09/224005, from which this application claims priority, the Examiner rejected Claims 1- 25 under 35 U.S.C. § 103(a) in view of a single reference, namely, U.S. Patent No. 5,089,269 to Noda. Noda is directed to a basic make-up or hair cosmetic composition including microcapsules having a particular particle size. Noda is not directed to forming a stabilized aqueous ascorbic acid composition, nor the problems associated with prior art attempts at doing so. Indeed, the Examiner concedes that Noda does not show the present invention as claimed. In response to Applicant's argument that Noda does not teach modifying weight percents in order to achieve Applicant's composition, the Examiner states "This is true, Noda does not teach modifying the percentages, however, Noda does not teach different weight percents than those taught by Applicant, Noda simply does not specify the quantities. It is the

position of the examiner that this does not prohibit Noda from rendering applicant's claim obvious, as there is not way to tell that Noda's amounts do not fall within applicant's claimed ranges."

Noda's amounts do not fall within Applicant's claimed ranges. Noda presents a composition consisting of solvents and film-forming polymers as a method of delivering active ingredients. It is believed that the matrix created by active ingredients and film-forming polymer occurs only when the ratio of these two ingredients is about 1:1 to about 20:1. It is further believed that the crystalline structure does not exist in any other ratio outside of this range. The functionality of the Noda composition appears to depend on this matrix, and thus the ratio specified in its formula. However, it is believed that ascorbic acid cannot be stabilized under these conditions. Accordingly, Noda's amounts do not fall within Applicant's claimed ranges.

Applicant presents a composition of solvent, non-film forming cationic polymers, humectants and ascorbic acid. Applicant has amended claim 1 to clarify that the cationic polymers of the present invention are non-film forming. It is the molecular interaction between the ingredients that facilitates stabilization of ascorbic acid, when the ratio of active ingredient to cationic polymer is about 0.02:1 to about 1:1. Under these restrictions, no film-formed matrix results (keeping in mind that the Noda cationic polymers are film-forming). The present invention does not create a film-formed matrix precisely because ascorbic acid apparently cannot be stabilized under such a condition. Thus, it is the ratio of cationic polymer to ascorbic acid, one that falls outside of the range required for Noda, that makes the inventive composition successful in retarding the oxidation of ascorbic acid. Claim 1 has been amended to limit the ratio of active ingredient to cationic polymer to about 0.02:1 to about 1.1. This clearly is not taught suggested or implied in Noda. Accordingly, the presently claimed invention distinguishes over Noda.

Applicant has demonstrated that not only is the film-forming nature of Noda's composition entirely unrelated to the process of stabilization of ascorbic acid, but also that the presently claimed invention requires a ratio of active ingredient to cationic polymer that falls completely out of the range taught by Noda. It is not the intention of Noda to stabilize ascorbic acid (nor is it suggested or implied). A skilled artisan could not look to the teachings of Noda and create a composition as claimed for stabilizing ascorbic acid given the specifications taught.

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Respectfully submitted,

Respectfully submit

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